

Greater Manchester Museum of Science and Industry



Greater Manchester Museum of Science and Industry

Visited by
Her Majesty The Queen
and
His Royal Highness The Duke of Edinburgh
5th May 1982

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Consultant Architect: Mr. A. Little,
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Main Contractors: Wm. Thorpe & Co. Ltd.

Greater Manchester Council

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Introduction

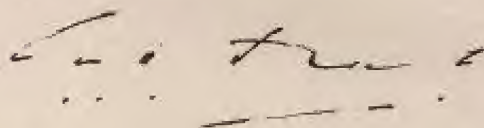
In his novel "Coningsby" set in the period of the passing of the Reform Act - 1832, Disraeli wrote:

"A great city whose image dwells in the memory of man is the type of some great idea" and, after referring to the images of Athens, Rome, Jerusalem, Paris and London, continued, "Rightly understood, Manchester is as great a human exploit as Athens It is the philosopher alone who can conceive the grandeur of Manchester and the immensity of its future."

In the development of this museum we are now seeking to commemorate that great human exploit. While many specific inventions were made in other places it was in Manchester that the industrial revolution really started in the form of early systems of mass or factory production.

Castlefield had a considerable significance in this development because in it there were combined the facilities of the Irwell/Mersey navigation system, the Bridgewater Canal, the Liverpool/Manchester Railway and a complex of warehouses and factories. To add to its significance it was the place where the Romans had established very much earlier a fort and communications centre.

Already much work has been undertaken to create the new museum. Many people and organisations have helped; most important the Greater Manchester Council, which has provided the impetus, drive and continual support for the project. This museum is still in the course of development and will continue to grow and evolve into an institution of national or even international significance. To achieve that end will need a continuance of the foresight and support which has been a feature of its development to date.



G. N. C. Flint
Chairman: Greater Manchester Museum of
Science and Industry Trust

How the Museum Project started

In 1978 the Greater Manchester Council agreed to acquire from British Rail the major part of the Liverpool Road Station site. This was originally the Manchester terminus of the Liverpool/Manchester Railway. Now it is the oldest surviving passenger railway station in the world, albeit that passenger transport was discontinued in 1845, and thereafter until the mid-1970's the station was used only for goods traffic.

Some renovation and restoration work started almost immediately, and this was sufficiently far advanced by 1980 for the station to be used for a grand "Exposition" to celebrate the 150th Anniversary of the opening of the Liverpool/Manchester Railway. Since then development has proceeded apace so that the first phase of the new Museum, to be called the Greater Manchester Museum of Science and Industry, will open in 1983.

The planned development of the Museum includes the ultimate refurbishment and restoration of all the original buildings on the Liverpool Road site, the re-laying of railway tracks to accommodate engines and rolling stock, and the provision of all the public services which are necessary to a major undertaking of this type. Initially the Museum will accommodate the transfer of the undertaking and exhibits of the North Western Museum of Science and Industry, which is currently inadequately housed in scattered and dispersed quarters at Grosvenor Street, Manchester and at a number of other storage sites. From the existing North Western Museum of Science and Industry will be transferred the extensive collections which have been built up since it opened in 1969.

In the space and buildings available at Liverpool Road it will be possible to display the existing exhibits at Grosvenor Street to far greater effect. In addition, the new Museum will be able to adopt a progressive collecting policy,

and to restore and renovate other major exhibits particularly reflecting the industrial history of Greater Manchester and the North West.

The first phase of the Museum development includes the restoration of the original passenger station building. This is a Grade I listed building, and is flanked on its frontage to Liverpool Road by the Station Master's house and several other buildings associated with the station's early development. Built on two storeys the restored building will include the original wooden staircase which led from the road level waiting room and booking area to the railway level.

The largest exhibition area to be opened in the first phase will be the Power Exhibition Hall. Restoration work is now completed on this former goods shed, originally built in about 1860. In it will be housed exhibits associated with the development of the Power Industry including some locomotives.

Alongside the Power Exhibition Hall will be a railway track, which will enable visitors to the Museum to take rides behind steam locomotives or replicas of very early engines such as Rocket or Novelty. A large crane gantry which is to be re-painted and restored to full working order will create one of the largest visual external features of the new Museum.

The later stages of development will include the restoration of the remaining buildings fronting Liverpool Road and adjoining the original station building. The largest display space on the completed site will be located in a warehouse built in 1830 opposite the original passenger station. This structure, over 100 yards in length and three storeys high, has already had some external restoration work done to it. The other major development to be completed in the later phases will involve the restoration of another large warehouse at the Byrom Street end of the site which will ultimately be used as workshops to restore exhibits; and as an education centre associated with the Museum. It is hoped to expand the educational duties of the existing Museum to provide a service open to all the schools in Greater Manchester.



Station Building

Located close to the junction of Water Street and Liverpool Road the Station Building remains today largely as it was when built. The ground floor of the station area was originally a booking office and waiting room. The original staircase (which led to the level of the railway lines), is now being renovated.

At railway level there is a canopy over the passenger waiting area supported by cast iron columns.

In the first phase of development of the new Museum, the Station Building is being restored to its original state. The frontage facing Liverpool Road will be screened and the cement rendering will be removed to expose the original stone and brick elevation. The interior will be restored to its original condition. Within the Station Building will be housed some displays showing the history of the Liverpool/Manchester Railway.

The later phases of development will include the restoration of the station master's house and other buildings adjoining the station building. These buildings will be used to house major displays showing the role of Manchester in the development of the industrial revolution. They will also contain restaurant and shop facilities to service public visiting the Museum.



The Power Exhibition Hall

The former goods shed built in approximately 1860 has now been completely restored. It will form the first major exhibition area of the new Museum to be opened to the public.

Work is under way installing the exhibits, many of which will be large machines. Rail tracks are being laid into the goods shed so that some mobile exhibits can be displayed there.

The Power Exhibition Hall will tell the story of industrial power from horse wheels, and water wheels, through early steam engines to the last of the mill engines, steam and later types of locomotives, the very early gas, diesel and petrol engines, through to motor cars. Included amongst the exhibits will be a working model of a Newcomen Engine.

The majority of the exhibits are from the North West of England and many were built in the Greater Manchester area. Displays will include Crossley, Gardner and Rolls Royce engines, and Beyer Peacock locomotives; and electric generation, with exhibits made by Mather and Platt, Ferranti, and Metropolitan-Vickers. Most exhibits will be displayed in working order; and it is intended that much of the necessary restoration work to achieve this will be undertaken on the museum's own premises.

The Track

Alongside the Power Exhibition Hall is an overhead crane gantry. When restored and repainted this will form one of the outstanding visual features of the open air part of the Museum. Below it and alongside the Power Exhibition Hall are lengths of rail track and a covered platform is being constructed as part of the first phase of the Museum buildings. The track will be fenced and the area around it is to be paved. A railway station passenger bridge, donated by British Rail, is being relocated over this section of track for spectators.

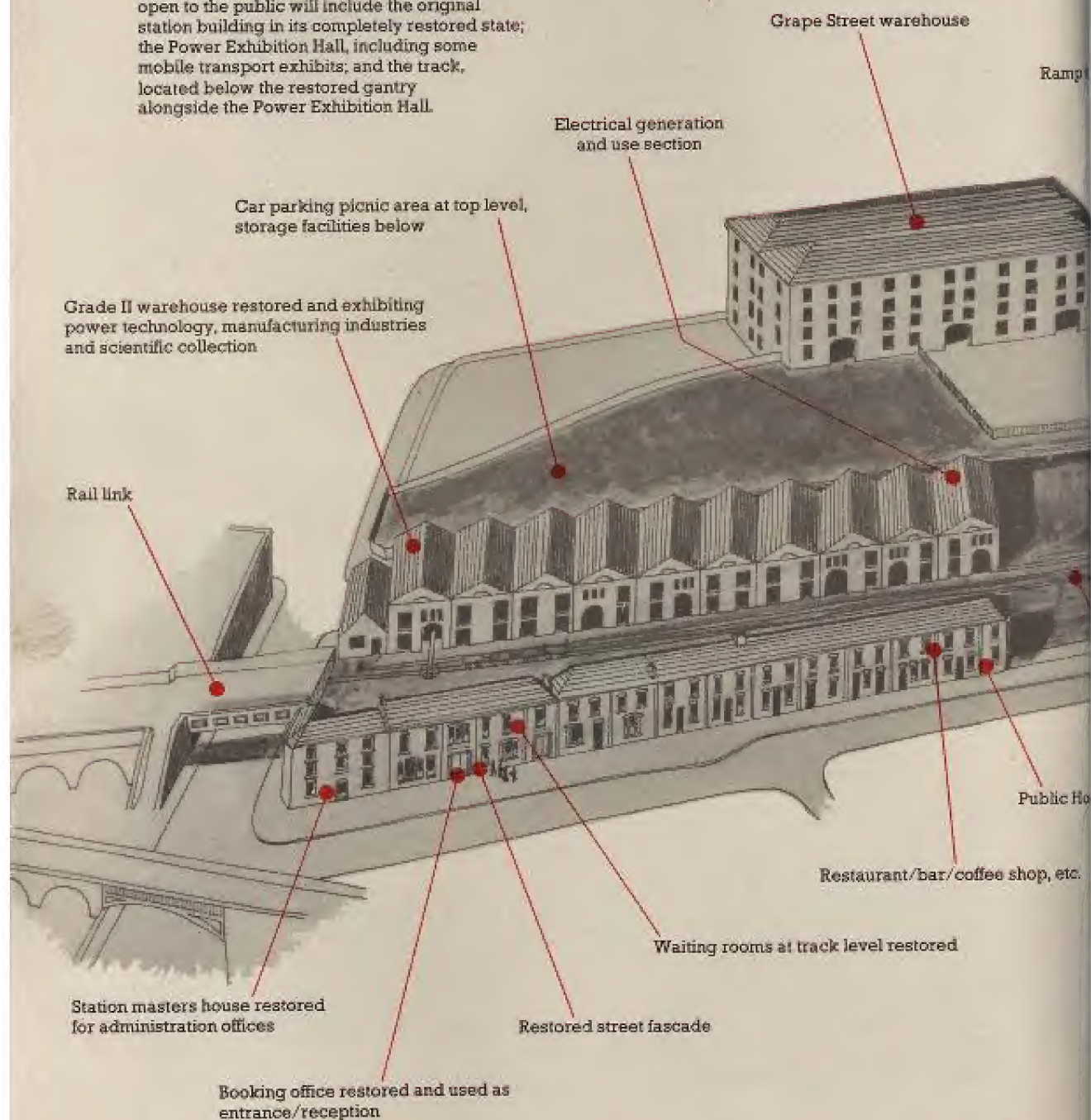
This track will allow replica trains and steam engines to pull passengers on short demonstration journeys within the Museum grounds. The track is also connected to the main line system of British Rail and it is hoped that in the future it may be possible to run steam hauled excursions from and to the Greater Manchester Museum. The construction of the track has been grant-aided by the English Tourist Board.

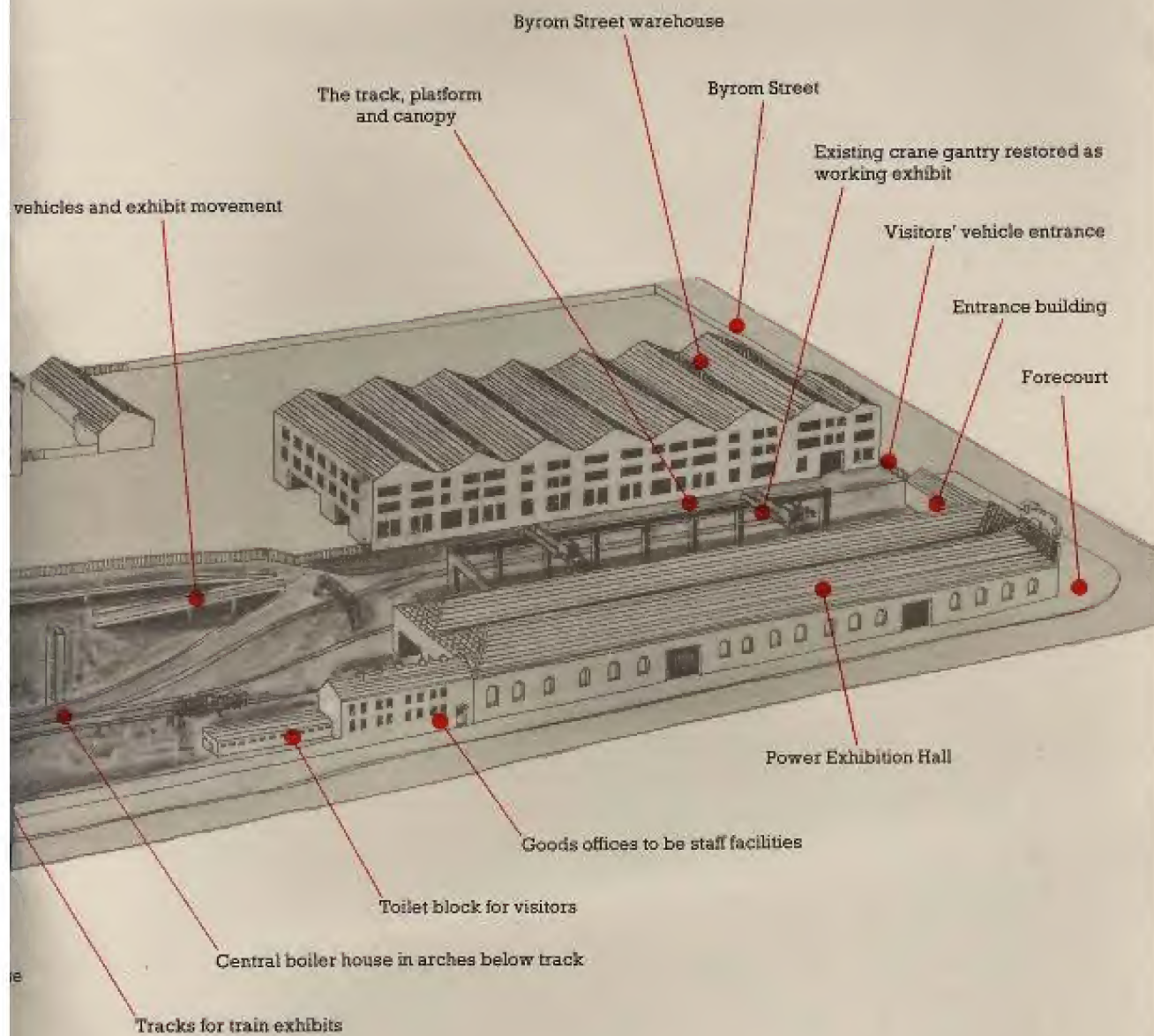


Greater Manchester Museum of Science and Industry

A birds eye view of the Museum proposals, showing the Museum as it will be at the completion of all the phases of development which are currently planned.

Note: the first sections of the Museum to be open to the public will include the original station building in its completely restored state; the Power Exhibition Hall, including some mobile transport exhibits; and the track, located below the restored gantry alongside the Power Exhibition Hall.





The 1830 Warehouse

One of the most important later phases of development of the Museum of Science and Industry will be the refurbishment of the largest warehouse on the site. Built originally in 1830, the building is listed as Grade 2 and is located opposite the original station building. Over 100 yards in length, with three main floors and a basement, the brick exterior conceals a wooden framed structure.

This original wooden frame has deteriorated to such an extent that apart from restoring one particular section within the warehouse as an exhibit, it will have to be completely replaced with a new structure installed to meet modern fire regulations, having adequate load-bearing capacity, fewer pillars and better headroom.

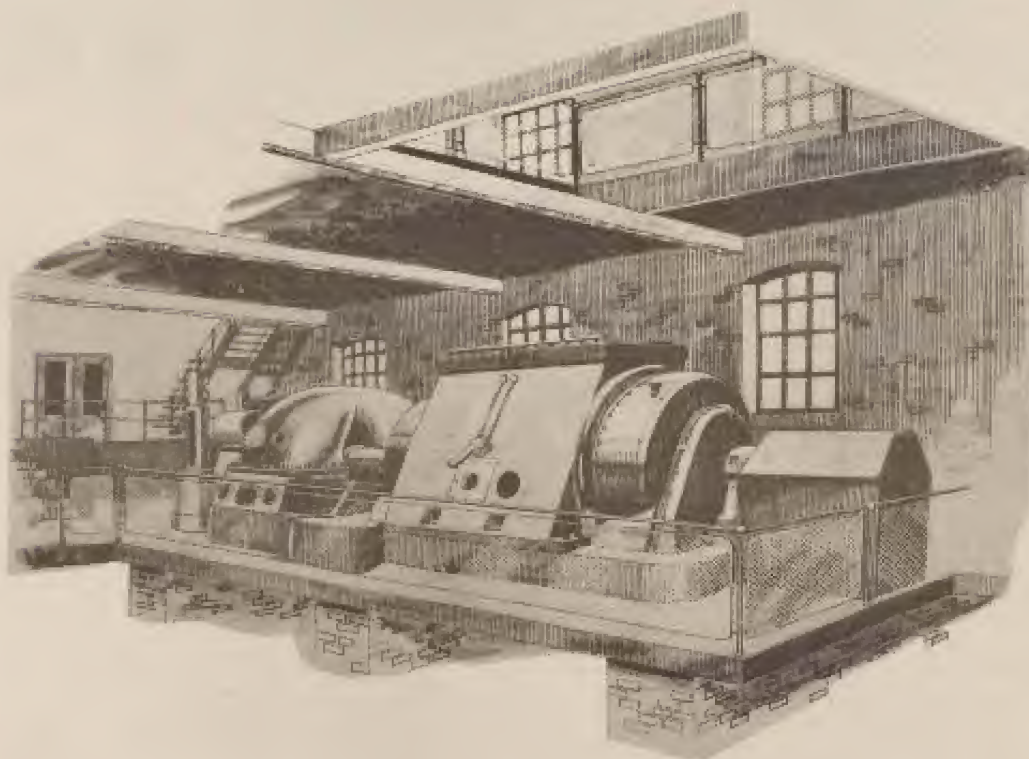
Internally the building is divided into six structurally independent compartments by load-bearing brick walls. Vertically the levels consist of a cellar, the yard or road level, rail level,

and a top floor. The present plan of redevelopment envisages that the ground floor will be devoted to an exhibition demonstrating the growth of canals and the textile industry.

The first floor, apart from an area of the building which is being restored to show its original use as a cotton warehouse, will contain sections devoted to printing and paper making, sanitation, civil engineering and computers.

On the top floor it is hoped to house exhibits covering weights and measures, Manchester scientists, physics, scientific instruments, optics, photography and timekeeping and a display of drawings and paintings about the industrial revolution.

However, the first stage of opening this building to contain exhibits is likely to involve a section remodelled internally to house a large electricity generator and other associated electricity industry exhibits. Already a generous offer of help has been received from the Electricity Council. It is planned that work will start on this first stage of development in the 1830 Warehouse during 1983.



The Restoration Workshop

A large warehouse adjoining Byrom Street is the most recent building to be considered for development within the Museum complex. When developed, this building will enable the Museum to undertake a considerable amount of restoration work on major exhibits on site.

The Restoration Workshop will include a machine shop, an erection shop, a paint shop, engineering stores, electrical and insulation workshop, a model-making area, together with a drawing office and associated engineers offices. There will be room to house archives material and to have a reading room, a temporary display area and offices. Exhibits awaiting restoration or repair will be stored in the basement of the building.

At first floor level the restoration workshop may also ultimately house the Museum's main active educational facilities. It is hoped to build a lecture room seating up to 200 people with an adjoining dining room. Plans also envisage an administration room, three additional workshops, technicians and secretarial offices, design and photographic studios, a woodworking shop and a display preparation area.

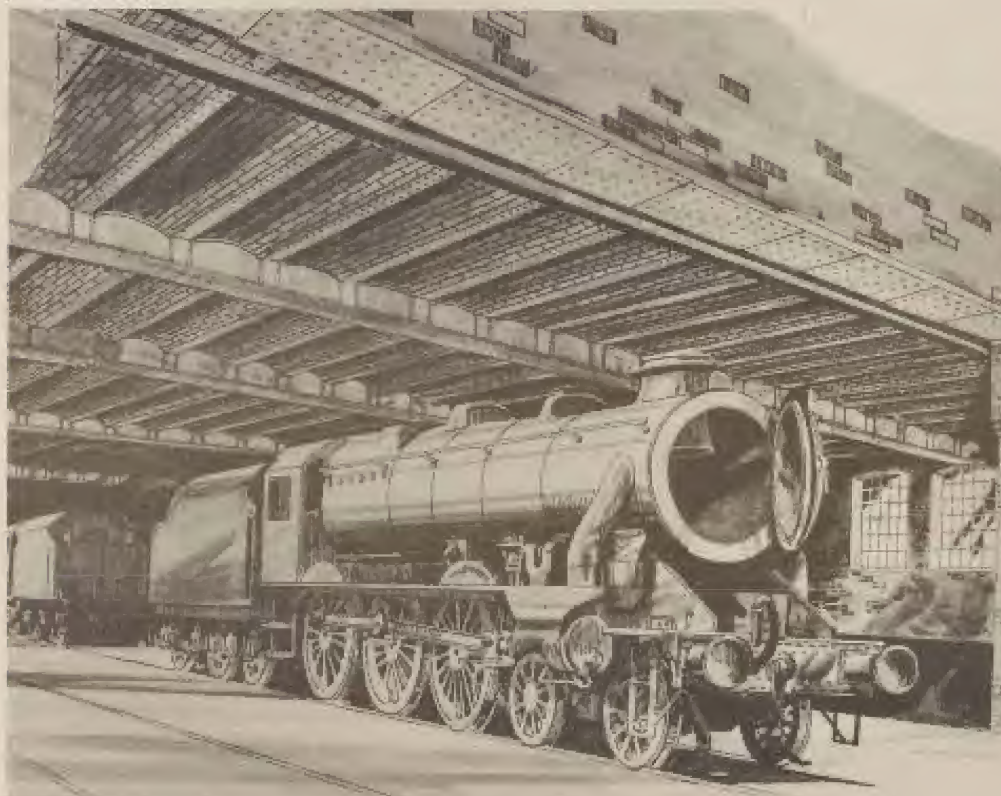
Other Works

As the Museum develops, additional services such as shops, restaurants and other public facilities will be introduced. The area of restored track will be used to display collections of engines and other rolling stock, and other outside areas within the Museum will be used to display major exhibits which can be left safely out of doors.

Another area which will be restored and converted for use is the under-croft of a viaduct located behind the 1830 Warehouse. These large brick arches will be converted into stores and workshops for the Museum.

Already some clearance work has been undertaken in this area with the help of Community Industry, the Government sponsored training unit.

Other projects on the external areas of the site are using Manpower Services Commission assistance to provide work and training for school leavers and unemployed building workers.



Exhibits

Many of the exhibits for the new Greater Manchester Museum of Science and Industry are already on display at the existing Museum premises at Grosvenor Street, Manchester. Many more have been collected by that Museum but are unable to be restored and erected due to lack of adequate display space in the existing accommodation.

The development of the specialised new facilities at Liverpool Road will enable all the current collections to be displayed to considerably better effect and will allow new exhibits to be displayed.

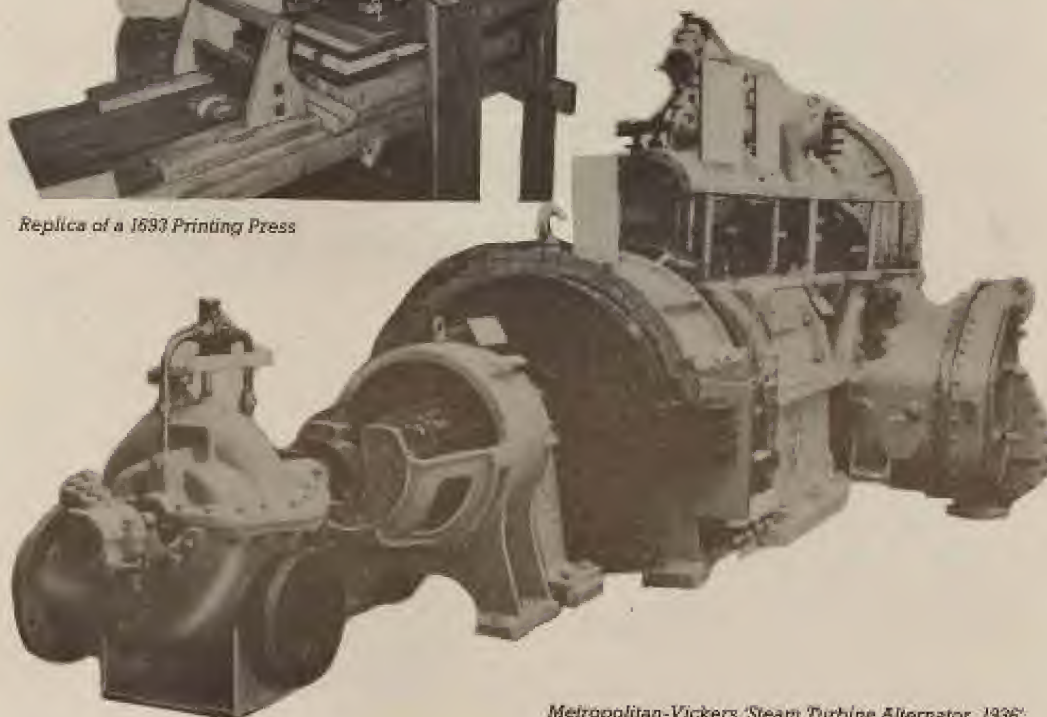
A feature of the current Museum is that many exhibits have been restored to working condition, and these are often demonstrated to the public operating as they originally did. The Greater Manchester Museum of Science and Industry will continue and expand this policy.



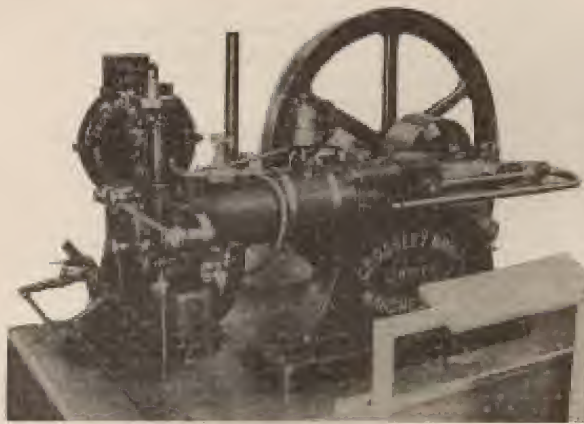
Microscope made by J. B. Dancer, 1841.



Replica of a 1693 Printing Press



Metropolitan-Vickers 'Steam Turbine Alternator, 1936'



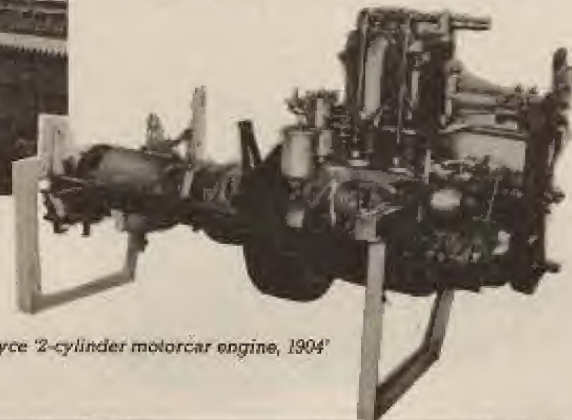
Crossley '4-stroke Gas Engine, c.1880'



One third scale replica of 'Thomas Newcomen's Steam Engine, 1712'



Platt Bros. 'Self-Acting Spinning Mule, 1927'



Royce '2-cylinder motorcar engine, 1904'



Arkwright's 'Waterframe' for spinning cotton, 1775.



Galloway Steam Engine from Elm Street Mill, Burnley

Finance and the Future

The first phase of building the Greater Manchester Museum of Science and Industry will cost approximately £1.25M. The majority of the funding to date has been provided by the Greater Manchester Council, although significant assistance has been given from other bodies.

Finance has also been provided by the Department of the Environment - through Inner-Cities and Manpower Services programmes - by the Historic Buildings Council, and from the English Tourist Board. The British Rail Board has also undertaken to pay the Greater Manchester Council a considerable sum on the acquisition of the Museum site.

Apart from the donation of exhibits and equipment - and help to restore them, British Rail has also provided much helpful advice. Government grants have helped to fund building work, through Community Industries and Manpower Service Schemes. The Historic Buildings Council have contributed to the

restoration work of the listed buildings and inner-city grants have assisted with cleaning and painting work and the restoration of Victorian entrance gates.

The Liverpool Road Station Society which was formed by members of the Victorian Society, has provided much help during the 150th Anniversary celebrations.

Later phases of development will undoubtedly require considerably more resources than the building work undertaken to date. Already a very generous offer of financial assistance has been received from the Electricity Council and it is hoped that representatives of particular industries which will be specifically displayed in the new Museum may contribute towards its long term development. The Museum will ultimately depend on support from many sources, not just the County Council.





GMC

Greater Manchester Council

Produced for the Greater Manchester Museum of Science and Industry Trust by the
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